

1    **What Is Claimed Is**

2    1.    A reclining apparatus for use between a post and a seat of a chair, the  
3        reclining apparatus comprising a first joint for attachment to the post,  
4        a second joint pivotally connected with the first joint for supporting  
5        the seat and a locking device for locking the second joint in one of  
6        several reclined positions relative to the casing.

7    2.    The reclining apparatus according to claim 1 wherein the locking  
8        device includes:

- 9        □    a rod connected with the second joint and movable on the first  
10        joint, the rod defines several dents; and  
11        □    a latch movable on the first joint between a releasing position  
12        where the latch is away from the rod and a locking position where  
13        the latch is in one of the dents so as to lock the seat in one of the  
14        several reclined positions relative to the post.

15   3.    The reclining apparatus according to claim 2 wherein the rod and the  
16        latch are movable in transverse directions.

17   4.    The reclining apparatus according to claim 2 wherein the locking  
18        device includes a mount installed on the first joint, and the rod is  
19        movably installed on the mount.

20   5.    The reclining apparatus according to claim 2 wherein the locking  
21        device includes a handle for maneuvering the latch.

22   6.    The reclining apparatus according to claim 5 wherein the locking  
23        device includes a linkage connected between the latch and the  
24        handle.

25   7.    The reclining apparatus according to claim 6 wherein the linkage  
26        includes a shaft connected with the latch, and the handle extends

1 transversely from the shaft.

2 8. The reclining apparatus according to claim 7 wherein the linkage  
3 includes a V-shaped lever pivotal on the first joint, and the V-shaped  
4 lever includes a first end linked to the latch and a second end linked  
5 to the shaft.

6 9. The reclining apparatus according to claim 8 wherein the linkage  
7 includes a link connected between the shaft and the second end of  
8 the V-shaped lever.

9 10. The reclining apparatus according to claim 1 including a pin for  
10 pivotally connecting the second joint with the first joint.

11 11. The reclining apparatus according to claim 2 including a pin  
12 connected between the second joint and the rod.

13 12. The reclining apparatus according to claim 11 wherein the first joint  
14 defines two arched slots for receiving two ends of the pin.

15 13. The reclining apparatus according to claim 1 including a tuning  
16 device for tuning the reclined positions of the second joint.

17 14. The reclining apparatus according to claim 13 wherein the tuning  
18 device includes at least one spring connected with the second joint, a  
19 screw connected with the spring and non-rotationally installed on the  
20 first joint and a nut engaged with the screw and rotationally installed  
21 on the first joint so that screwing of the nut on the screw causes the  
22 pivotal of the second joint relative to the first joint.

23 15. The reclining apparatus according to claim 14 wherein the tuning  
24 device includes a worm rotationally installed on the first joint, and  
25 the nut is a nut/gear engaged with the screw internally and engaged  
26 with the worm externally.

1 16. The reclining apparatus according to claim 15 wherein the tuning  
2 device includes a crank extending transversely from the worm.

3 17. The reclining apparatus according to claim 1 wherein the post is a  
4 hydraulic cylinder.

5 18. The reclining apparatus according to claim 17 including a lifting  
6 device for controlling the hydraulic cylinder.

7 19. The reclining apparatus according to claim 18 wherein the lifting  
8 device includes a lever pivotally installed on the first joint, and the  
9 lever includes a first end for contact with the hydraulic cylinder and  
10 a second end to be maneuvered.

11 20. The reclining apparatus according to claim 19 wherein the lifting  
12 device includes a shaft rotationally installed on the lateral walls of  
13 the casing and connected with the second end of the lever.

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